Kit Contents


x 1


x 3 or
wire nut x 3


x 1
120v


x 12

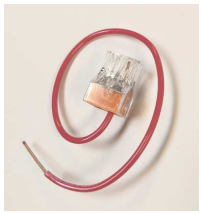

x 1 (or x 2 for VHO kit)


x 2 or 4


x 9


x 1


x 1


x 4
(VHO kit only)

x 4

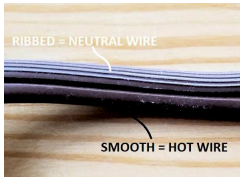

x 1

Your kit may also be different, as we do change the parts sometimes

Max draw is 2.01A@120V for the WorkHorse 7 & 8. SunHorse rated max 2.4A@120V / 1.2A@240. Actual draw depends on configuration.

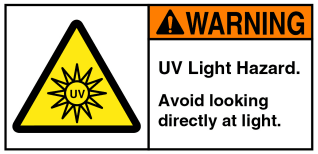
CABLE NOTICE

Some kits use “side by side” wire rather than SO cable You can tell the neutral (normally white) wire on these cords because they have grooves/ribs in the wire coating. The hot (normally black) will be smooth and often have writing on it. The ground (center wire) will still be green.



DANGER! RISK OF ELECTROCUTION!

This kit produces high voltages that can injure or kill you. Assembly should be done by a licensed technician.



DANGER! ULTRAVIOLET RADIATION

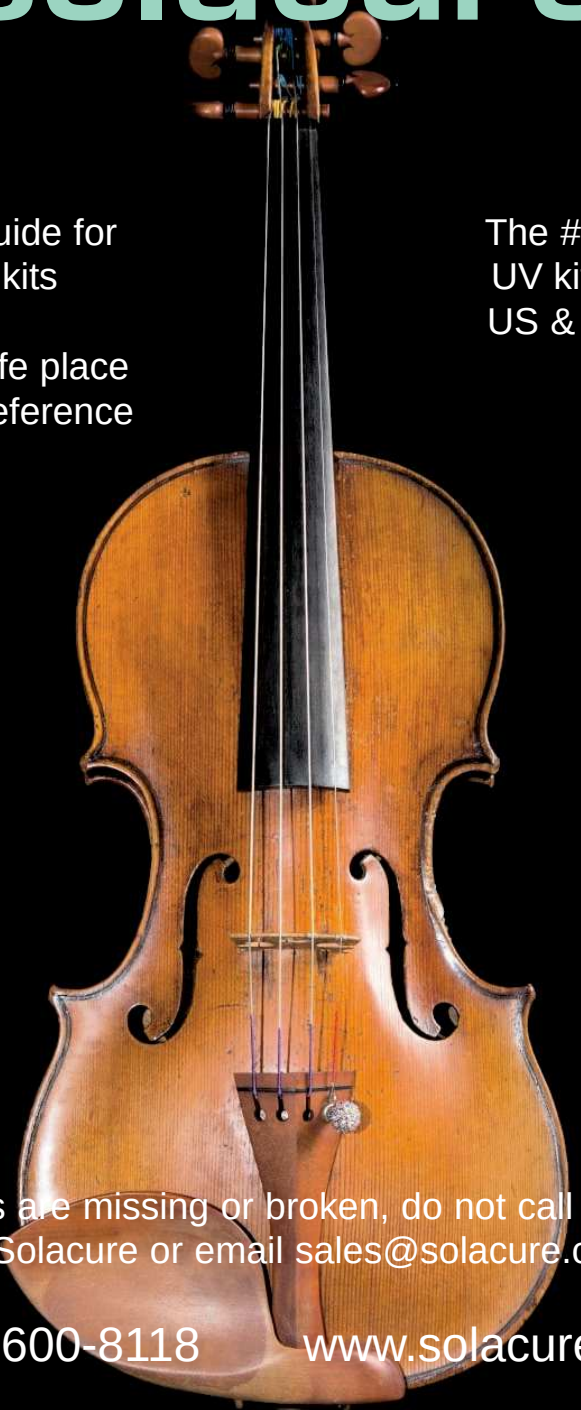
Long term exposure to ultraviolet has been linked to skin cancer. You must wear eye protection when you are near the energized bulbs or you risk permanent damage to your eyes.

solacure

Owners guide for all UV kits

Keep in safe place for future reference

The #1 selling UV kits in the US & Canada



If any parts are missing or broken, do not call the seller, call Solacure or email sales@solacure.com

1-800-600-8118 www.solacure.com

Solacure is 100% US veteran owned

Before you start....

Take the time to read this guide and make sure you have all the parts. If any parts are missing, call 800 600 8118 or email us at sales@solacure.com.

Lay out all the parts as you are going to install them in your fixture / rig to get a feel for what you will need to do. There should be plenty of wire length from the ballast, but we recommend you wind up any excess instead of cutting the ballast wires. Zip ties are very handy here.

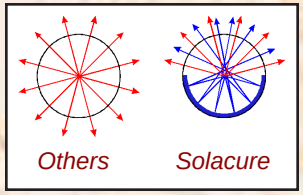
Note that all the parts we send you are rated for 600v, which is the voltage of the ballasts at the red and yellow leads. Don't mix with parts designed only for 120v or 12v automotive wire or you will be burning up parts and risking fire.

Some things to understand

The ballasts are fairly simple: Black is the incoming hot wire, white is neutral, ground the case to the green. The red wires are the lamp leads, the yellow wire is a shared return. Do not share yellows between two different ballasts. DO share the yellow with all bulbs on that ballast.

The lamp holders are robust, but not bullet-proof. The biggest problem with these kits is when someone over-tightens the truss screw securing the lamp holder. This is why we put a spare in the kit. Only use the screws we included, or similar (truss or lathe style), as they have a wide head that holds better while putting less pressure on the lamp holder itself.

The bulbs have reflectors INSIDE the bulb, so they are directional. Simply install with the label side facing the product and you are fine. The left image is a regular bulb, the right is a Solacure bulb. Notice all the light shines in just ONE direction. This makes it stronger.



If you do need a reflector system, the best one to use is household aluminum held in place with spray adhesive. Don't use mirrors or foil mylar. They reflect visible light well, not not ultraviolet.

Our kits come in 20w, 40w, 60w and 80w versions kits, and others. This affects lamp life in a linear way. ie: twice the watts = half the life. The bulbs will continue to burn even after they are no longer producing much UV. Replace when you notice they are less effective. Don't wait for them to burn out.

Read the warnings, and always use protective eye wear. The big concern is the eyes, since they can't protect themselves. Damage is cumulative, so it adds up. Keep kids and animals away from the lights when on. Over time, they will fade carpet or other materials in the room they are used in, so be aware.

Troubleshooting

One advantage of these kits is they use the only premium parts and are time proven, so it is very rare when there is a problem. Still, if you have one, here is a basic guide you need to follow BEFORE you call, that way we can fix it fast.

No lights will light - This means there is a problem at the ballast. Usually a hot or neutral wire isn't connected right. It could mean a failed ballast, but that is extremely rare. Unplug and double check all wires to find any loose ones.

One\two\three lights won't light - This could be wiring, or it could be the bulb. First check to make sure the bulb is installed right, remove and reinstall, making sure pins line up right. If that doesn't work, remove the suspected "bad" bulb and move it to the side. Take a bulb you know that works, and install it in the slot that the "bad" bulb was in. If the good bulb works, then it is probably a bad bulb. If the good bulb doesn't, then there is a wiring issue. Remove from power, check the red wire, and the yellow wire on both ends. if it is two or more bulbs at play, and it isn't the bulbs, it is always the yellow jumper wires at fault.

Ballast gets hot after a few hours of use - Assuming it doesn't get hot enough to burn you, this is normal. This is why we add shims to keep them cooler. The are "outdoor rated", so they are designed to take the heat.

Light bulb will flicker sometimes - Sometimes they flicker for the first few hours of operation but are still fine. Put a few hours on the bulbs before assuming they are bad. Often, it is that the bulb isn't installed fully. Make sure that the notch on the metal ring is straight up and down on the lamp holder. All fluorescent bulbs have this alignment notch. If not, try swapping the bulb with another and see if it is the bulb, or that slot. If it is that slot, then a wire is probably lose. If the problem travels with the bulb, then it's defective.

Lights are older and light up, but won't darken or cure - They are probably just due for replacement. They will continue to light up even when they aren't producing any appreciable UV. The UV fades over time, typically 1000 to 2000 hours, depending on how many watts you are running and how many "on/off" cycles you have run. Replace with new bulbs.

Any other issue? - Call us at 1-800-600-8118. You have free support for as long as you own our equipment. Problems are rare, but we will walk you through any issue you have, to get you to a quick resolution.

Warranty information can be found at http://www.solacure.com/warranty.html

Violin \ Cello drying

For violins, the lamps are usually put in the corners facing in, and the violin is suspended in the middle of the box. To get by with just four bulbs, you will need to rotate the violin. A motor from a mirrored ball (available from any DJ supply house, $20) is perfect for this, as they rotate around 4 to 6 RPM.

A mirrored ball motor turns @ 4-6 RPM, perfect for drying and aging the wood on violins. Grill rotisseries motors are similar, for heavy items

The general idea is that you put on the first coat of finishing, put it in the box, turn on the lights, come back 24 hours later and repeat for as many days and layers as you like.

To prevent heat build up, it is best to have a box that is open on the bottom, and install a fan on the top that blows out and up. Any fan is fine for this purpose. This way you are working with heat convection and not against it. It is common to also have a small humidifier in the room near the violin as well, to keep the wood from over-drying. Nothing fancy, just something to put moisture in the air.

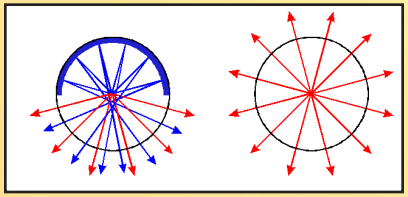
Pool Cues / Fishing lures

These are very common, and similar to violin drying, except most of you will build a 12” x 12” to 14” x 14” box. Length depends on which length bulb. Some choose a horizontal layout, others a vertical one. Using the “disco ball motor” (above) is common for pool cues, less so for lures, however.

One option for moderate volume lure making is make a horizontal box with a lid that isn’t attached to the box, but sits on it, and you connect the lures to the lid, and lower it into the box. This lets you make multiple lids, so you can finishing one set of lures, while another set is in the UV and curing.

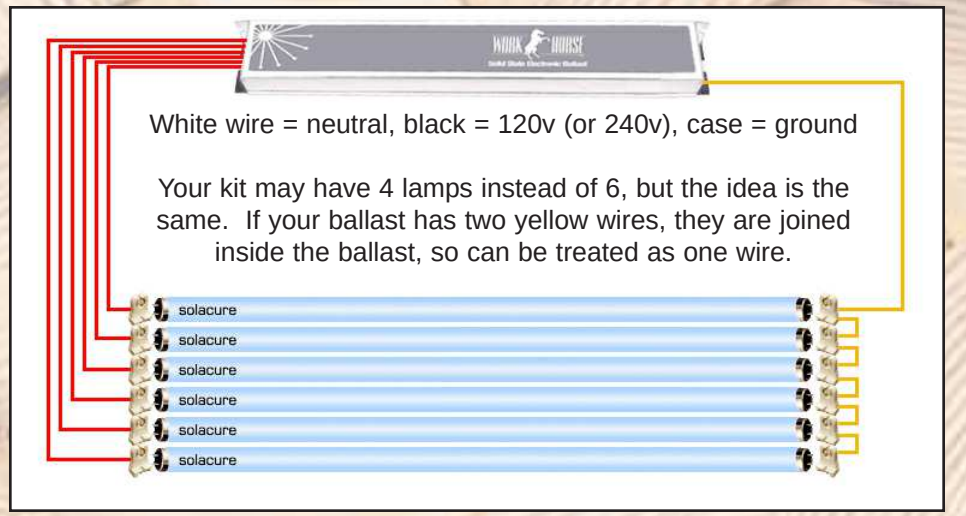
Reflector system

If you have the lamp all in a line shooting one direction only, you don’t need any other reflector system. If the lamps are around the object, then you would benefit from adding a reflective surface. Just use spray adhesive and use the shiny side of aluminum foil, the stuff out of the kitchen. Really. Mirrors and mylar don’t reflect UV very well, aluminum does a good job.



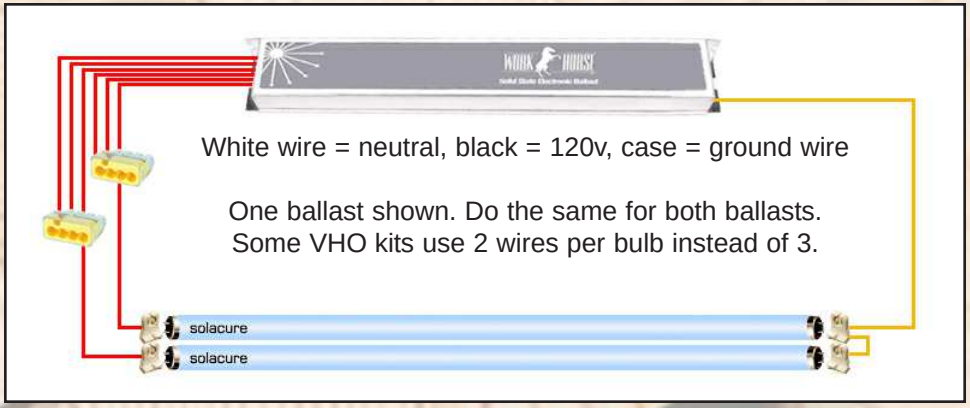
Right: a regular HO lamp
Left: Solacure bulb with built in reflector system.

Wiring diagram for Standard & HO kits

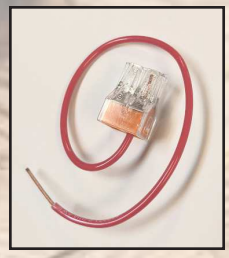


The lamp holders we use are “shunted”, meaning the pins are jumped inside the holder, so you only need one wire per side on the red side. Either hole is fine. This diagram is true for the Workhorse 7, SunHorse or similar ballast

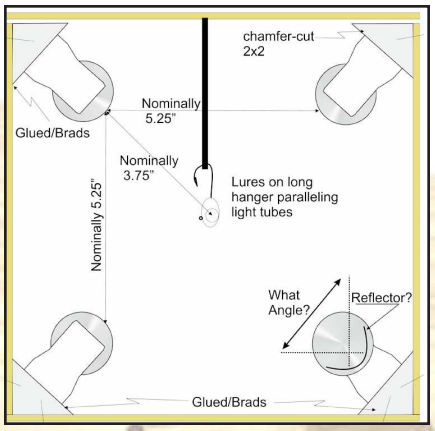
Wiring diagram for VHO kits



The VHO kits are similar, but the ballast has 6 wires and will power TWO bulbs. The VHO kit will have 4 red jumpers in the package (shown in image). You take three of the red wires from the ballast, insert in the jumper wire, then use the one bare wire from the jumper as the lead to the bulb. Basically, we are combining three reds into one, and this jumper just makes it easy. This diagram is for the Workhorse 8 ballast only.



Let's get started! (after you read all of this)



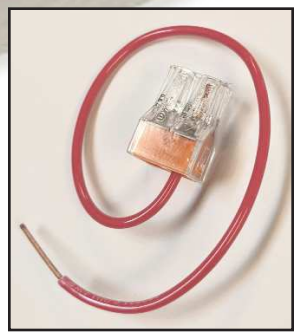
You need to first build the box or rig for mounting all the gear. The size and shape depends on what you are exposing to UV. For pool cues and fishing lures, 12"x12"x48" is the most common. Violin makers use 24"x24"x48" most of the time. For 2 foot kits, the length is reduced. This size doesn't include any built in stand or extension, just the curing chamber. Because every use is different, we can't help much in this manual, but we do have online help at www.solacure.com with examples of builds.

Next, slip two lamp holders on a lamp and verify the length against your rig, then mount lamp holders only on one side at first. Next, use the bulb as a guide as to where to mount the 2nd holder, allowing a tiny bit of extra room for heat expansion. The holders mount with a single screw, supplied. Do NOT over-tighten, as this will crack the holder. A spare holder is included in the kit.

Now mount your ballast outside of the curing chamber on the exterior of the box if possible. Sometimes you don't have a choice but to mount inside, which will work, but makes more heat. Make sure it is positioned so the red wires will reach all the lamp holders and the yellow will reach at least one. Use the supplied screws to mount the ballast, and use the supplied nuts as shims, between the ballast and the mount surface, to give it an air gap. This isn't required, but a good idea if you leave it running long periods.

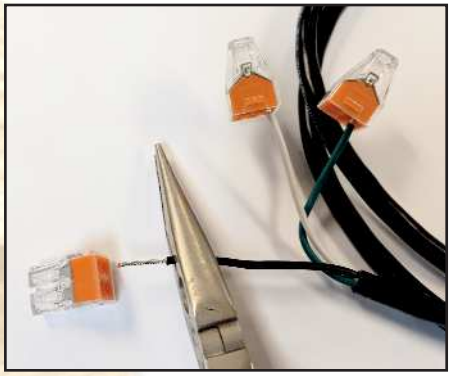
For standard HO kits: On one end (we will arbitrarily call it the "left" side), connect one red wire per bulb. The holder has two holes, both are joined to both pins on the lamp, so it doesn't matter which hole you use. Next, connect the yellow wire(s) to one of the lamp holders on the RIGHT (other) side. Use the supplied wire to strip and make jumpers so that all the lamp holders are connected to a yellow wire.

For VHO kits: It is basically the same except you will use the red jump wires (shown) that are supplied. You will insert 3 red wires from the ballast into each jumper, then connect the one bare wire on the jumper to the lamp. In the end, we are taking 6 red wires and connecting them to 2 lamps. Connect your yellow on the RIGHT side, jump to the 2nd lamp holder on the right using the supplied wire. Do not cross connect the yellow to the yellow wires on the other ballast.



Next get your power cord, strain relief (gland, shown) and run the power cord through the gland and tighten it up. If you are running through steel, you will need to drill a 1/2" hole to mount the gland. If you are simply mounting the gland flat (not perfect but still protective) use a surface cable mount bracket or zip tie or similar. You will figure it out.

The tricky part is now pushing the wires from the power cord into the three supplied 4x wire join, with the black, white and green going to individual wire joins. You need to use a pair of pliers, holding the cable wires (shown in image) so that about 1mm of insulation is exposed, and gently push it fully into the wire join. The power cord isn't solid wire, it is tinned stranded wire, so it has a tendency to fold on you. Some kits have wire nuts instead, so this won't apply to you.



Once complete, connect the black wire from the ballast to the join with the black wire, white to white, and connect the supplied green wire to the green wire join. You will need to strip the wire on the green wire, and connect it to the case of the ballast. The easiest way is the loosen one nut on the ballast, wrap the bare wire around the screw shaft, then tighten. For VHO kits, both blacks go to the black join, whites to white, and both ballasts need grounding. You may also use 600v rated wire caps if you prefer, which some kits actually ship with.

Note, if you are adding an on/off switch (a good idea, actually), you only need to interrupt the black wire coming from the cord. If you need any addition wire, note that the ballast uses 18 gauge solid wire throughout. You should never use smaller wire.

Install bulbs, making sure you can see the "dent" on the metal ring is in the center of the lamp holder, AND the label is facing the product. Because the bulbs have reflectors, they are directional and only shine in one direction. If the label doesn't face the product, zero light will hit it. Next, put on UV glasses, plug in the unit and verify that all the bulbs work. If something isn't working, unplug, verify all wires are tight (pull on each wire gently to make sure it is in), reseat your bulbs and try again.

Many people end up tweaking their setup after they have used it a while, so don't be surprised if you do some changes as well. How you use the UV rig is different than others, and the beauty of the kit is that they are easy to customize for your specific needs, and easy to modify later.